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Insect Control-Minidoka
Fall & Spring
1935-1936

Oakley, Idaho
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Timber Management

REPORT ON MOUNTAIN PINE BEETLE (Dendroctonus monticolae) CONTROL WORK COMPLETED ON THE MINIDOKA N.F. DURING THE FALL OF 1935, AND SPRING OF 1936.

The treating work on this Insect Control Job will be discussed according to the present existing timber survey compartment boundaries rather than by Ranger Districts and drainages. The treating work covered the entire Cassia Division of the Minidoka National Forest. It was started in the Fall of 1935, and finished in the Spring of 1936.

The Cassia Division consists of a total of 300,690 acres, of which over 2/3 is sage brush type. The following figures were taken from the Minidoka Timber Survey ~~Manual~~ Report.

TYPE	ACREAGE
Lodgepole Pine	8,608
Fir	1,131
Juniper	14,164
Aspen	27,889
Brush	6,138
Sage Brush	234,484
Grass	8,176
Total	300,690

The timber is in small patches varying from a few scattered trees to patches of a few to 100 acres or more in size. Most of the pine patches are of pure stand. On the higher elevations (7,000 ft. and over) a mixture of Alpine Fir is found with the Pine. Many scattered Pine trees are found in the Aspen type.

The Cassia Division consists of a circular Plateau, with its central portion some 8,000 ft. in elevation. The drainages and canyons more or less radiate to the outer edges from its center. The whole thing appears to be a large eroded pancake with topography varying from gently rolling slopes to a few deeply gorged canyons.

TRANSPORTATION

The entire Cassia Division is of such a character that it is, in general, very accessible as far as roads are concerned; but due to necessity of treating while the snow was on the ground, much difficulty was encountered. Heavy snow drifts and soft roads caused difficulty in

in getting men and camps into location. All of the timber patches of the Cassia Division are accessable to pack stock.

Since conditions of the country and roads as well as type of laborers used on the East and West parts of the Cassia Divisions were different, it will be necessary to treat them separately in this discussion.

WEST CASSIA DIVISION: On this side regular S&E funds were available. Local men were hired here. Men and camps were transported by trucks, wagon, and by a large two runner sled or "Go-Devil", drawn by a "35" Deusel tractor. This last system was very satisfactory. Camps could be taken in one load over ways which were impassable to both truck and wagon, and in some instances where it was impassable to loaded pack stock.

It was also necessary on this district to have a Cletrac "55" on the job opening roads into areas ahead of the crews, and for a period of two weeks, this machine ran two shifts per day. The snow cover in this locality is much different than that usually encountered on these early spring jobs. There was a lot of heavy wind during the winter, and as a result a lot of heavy drifts of snow were on roads and in timber patches. These snow drifts melted very slowly, and in order to get the project finished before fire season, it was necessary to buck through, and open all roads. This incurred an unusual expense.

EAST CASSIA DIVISION: On this side, ECW, S&E, and ERA labor was used. The areas to be covered were very much scattered and long distances had to be traveled by roads to get to the camps. It was necessary to put a Cletrac "55" on the job to open snow roads, and some difficulty was encountered with mud also. Around 100 men (for after days) were used in shoveling snow through deep drifts, to make it possible to get through at an early date.

Trucks and heavy machinery were obtained from the Rock Creek CCC Camp. Oil, hay, and grain were delivered to most all camps by truck and in some cases, wagon. Pack horses were used to deliver oil to timber patches and to men on jobs.

Character of Infestation: The character of the attacks varied very much in the different localities. Since the project covered the whole of the Cassia Division, this can well be understood. The attacks varied from very light to very heavy, the heavy infestation being more or less concentrated in a comparatively small area.

The timber is very patchy, and is scattered over the whole District. There is probably 12,182 acres of timber in all.

In certain localities, heavy winter kill is prevalent, and in others very little if any. As usual, the more mature trees were subject

to greater attack, and a few areas of heavy infestation on a lot of of the young reproduction were in evidence.

Further discussion as per compartment will be listed in paragraphs on each of compartments.

History of Epidemic and Control Operations: Insect infestation counts on this Forest were made as early as 1923. Infestations to a minor degree have undoubtedly existed prior to this time.

The following tabulations will throw some light on the amount of increase:

Year	Actual count of Infested Trees	Estimated No. Infested Trees
1923	174	
1929	155	
1930	679	
1931		1179
1932		2307
1934		7100

35 13394
36 15,50

The above figures refer only to the East side of the Cassia Division. No information in regards to the West side are available, except that it is known that the increase runs about the same as the above.

In 1932, records show that 167 trees were treated. The method used was spraying and burning.

Location	No. of trees treated
Telephone Canyon	108
Cove Lake, & 1st Fork	25
Ecklund	29
Lake Patch Trail	5
Total	167

This present project began during the fall of 1935, and the results can be found in the form R-4, F.M.-I.C.-1 of this report.

Character of Timber: The character of the timber is found in patches of a few trees in size to areas of hundred or more acres in size. The species that we are concerned with is the Lodgepole Pine. This tree here may grow in mixture with Aspen, Alpine Fir, or both, or it may be found in pure stands, scattered, or in dense growth. They are much

scattered and for the most part the intervening country is sagebrush type. The Lodgepole does not reach large size. 12" - 20" D.B.H. and 60 - 75 ft. high is about the average size for mature trees, although larger individuals may be found. Whole patches of dense saplings mixed with parent trees are sometimes found.

In places where the timber patches are at all accessable to roads (which is the case of most of the patches) all dead and down material has been removed from the woods and the timber is open and park like with no understory of brush. There is a high public demand on this forest for fuel wood as well as green timber. Most of the trees that have been treated can be utilized for fuel wood for local consumption.

Method of control: The method of control used was spotting and treating by the crew as it progressed. The crew consisted of a five man line, one packer, and a foreman. 96.2% of the trees were treated standing, and the remaining 3.8% felled. Much care was taken in covering the country and 17,063 trees were treated this Spring. The trees were sprayed with oil, and burned.

Special scouts were sent out during early part of the job to catch all outside small patches. Later on, these scouts were used to scout for fires. Men that were acquainted with the country were picked as scouts. The scouts were also of considerable help to the foremen in lining up their country.

Effort was made to get all experienced foremen and with one or two exceptions, this was accomplished.

Pack horses carried oil, and also followed along and carried equipment for crews. In a few cases, the foremen were furnished with a horse to get straggling patches while the crews were working other patches.

Much precaution was taken in relation to fire and getting a proper burn for effective treating of the trees. In most cases the attacks were not too high for treating the trees standing, but occasionally large trees had attacks running to the top, and had to be felled.

On some areas wagons were used to haul equipment and oil; the teamster going along with the crew. The wagon was very valuable on such areas, but useless on others. Many of the horses used could be used both to drive and to pack, which was very satisfactory, as well as an advantage. Each crew was supplied with three pack horses.

Number of Camps: A total of 7 camps consisting mostly of two and three crews were established.

Three of these camps consisted of S&E crews. On April 25, two crews started on the West Cassia side; one 8 man crew at Pole Creek and another at Willow Springs. (This crew was moved in with the sled and Deisel.) On April 27, another crew was added to the Pole Creek Camp.

These crews moved camp three times during the job. The country covered varied from light infestation at first to heavy infestation toward the last. This was due to the country of heavy infestation being in higher elevations where the snow remained longest.

On May 14, another crew was added to the Willow Springs Camp, now camped at Tool Point on Deadline Ridge. On May 20, two more S&E crews were put in at 3rd Fork.

On May 31 the first S&E crew was broken up.

These crews on the West Cassia Division side were S&E men and covered considerable country where much of the timber was very scattered. ECW trucks and a Forest Service Deisel "35" was used to do the moving. These S&E men did good work.

On the East Cassia Division, the camps consisted of CCC boys, ERA men, and S&E men for packers and S&E and ECF men as foremen.

The first camp was moved into Trapper Creek on April 23. This was a 2 crew camp, consisting of 18 CCC boys, 3 S&E men,-2 packers and 1 teamster, & 2 ECF foremen. The extra CCC boys were used to shovel snow.

The second two crew camp was moved into Coal Pit on April 26, and consisted of the same set-up, with no extra men. On May 1, two crews were moved into Basin Patch.

May 6, two more crews were moved into Big Piney; these crews consisted of 13 ERA men, and 2 S&E foremen. This camp was 70 miles from Oakley and hard to get to.

On May 7, two more CCC crews were added, one to the Coal Pit Camp, and the other to Basin Patch. S&E Foremen were used in these two crews.

This made a total of ten crews on the East Cassia side. These crews encountered some difficulties in moving camp. Each camp moved but twice.

This work done by these crews, considering that all the men were inexperienced, did very well and accomplished a lot of good work. The country covered was scattered timber with from moderate infestation to heavy. Snow conditions existed, which made the heavier infested regions inaccessible at the beginning of the job.

The CCC boys used on this job were of a fine type and did excellent work. The same can be said about the ERA and the S&E men.

Compartments: Following is detailed information as per compartment as listed on Insect Control Survey of 1935.

McMullen: Consisting of approximately 63 acres, 30 acres being of mixed Aspen and Lodgepole types, and the remainder (33 acres) of more solid type of Lodgepole. The country was fairly flat and accessible.

The Insect Control Survey of 1935 showed 73 infected trees in this compartment. Only 60 trees were treated here. Very little winter kill was discovered on this area.

Lower Rock Creek: This consists of approximately 314 acres. The Southern edge of this compartment contains some fairly compact patches and the remainder of the Southern half contains but a few scattered patches, and also straggling trees. The remainder is sagebrush.

The Insect Control Survey of 1935 shows 70 trees. 238 trees were treated in this area. (Since the straggling trees on this area were heavily infested and were probably not covered by survey, this would account for the survey's being low.) Very little winter kill was prevalent.

Shoshone: Consisting of approximately 2547 acres, and is covered with a wide variation of sizes and types of patches. This condition prevails throughout the entire area. Generally speaking the large majority of this area is fairly accessible. The Insect Control Survey of 1935 shows 350 trees and the Fall and Spring bug job shows 1321 trees treated. (The large variation in number of trees is probably due to a larger acreage than is shown on timber survey map where the acreage was compiled from.)

Goose Creek-Rock Creek: Consisting of approximately 2014 acres, and is covered with patchy timber on the south, and heavier patches on the north and east. The types are a solid lodgepole in many patches, but several north slopes have a lot of Alpine Fir mixed with the Lodgepole. The area is fairly accessible.

The Insect Control Survey of 1935 showed 3072 trees with new attacks, and the Fall and Spring but job shows 3819 trees treated. (Slight amount of winter mortality seen on trees.)

Big Creek - Horse Creek: Consisting of approximately 295 acres with most of the timber confined to the North end. Toward the South end, the timber changes to a dwarfed type much scattered, having little or no infestation. The area is not accessible, except that on the East side.

The Insect Control Survey of 1935 shows 40 new attacks, and the Spring bug job shows 264 treated. (The large variation is probably due to the underestimating of the acreage of the timber.)

Lower Goose Creek: Consisting of approximately 466 acres, and that chiefly of scattered patches. There are a few fairly dense patches on East boundary. It is fairly accessible on East side, but is a long way out.

Insect Control Survey shows 93 new attacks, and the Spring job shows 251 trees treated. (Slight winter mortality shown in some areas.)

Lower Trout Creek: Consisting of approximately 149 acres of fairly dense patches of Lodgepole type with some scattered patches, and some straggling trees in very small groups. It is fairly accessible, but the timber is used only by a few neighboring ranches.

Insect Control Survey of 1935 shows 22 trees, and Spring treating 83 trees treated. (Slight winter kill among bug trees.)

Badger GL-Trout Creek: Consisting of approximately 492 acres of fairly dense stand of Lodgepole Pine with some mixed type of Alpine Fir on east slope into Badger Gulch. Accessible to wood haulers.

Insect Control Survey of 1935 shows 1804 trees and Spring & Fall treating shows 1254 treated. (Considerable winter kill of larva is shown in this area, which is probably the reason for the infestation's being lower than the survey shows.)

Trapper Creek: Consisting of approximately 968 acres. The North end contains a fairly dense stand of Lodgepole. Probably some of the largest timber patches on the Cassia Division are found in this area. It is a long compartment, and a large variation of type and patches occur. The patches on the South end are small and scattered, with some mixed type of Aspen and Alpine Fir. On North and East boundary are several large patches of reproduction, probably 40 to 50 years old, with scars of an old fire. Thirty per cent of this timber is accessible.

Insect Control Survey of Fall of 1935 shows 1130 new attacks. The Fall and Spring bug jobs show 1748 trees treated. Some winter mortality is shown here.

Upper 3rd Fork: Consisting of approximately 804 acres of almost solid timber (Lodgepole Pine) and having the heaviest infestation of any in the whole Cassia Division. The timber is mostly mature, and is in the heart of the infestation. The timber is all accessible, and fairly easily gotten out, although there are some types mixed with Alpine Fir. The Fir is a secondary type to Lodgepole Pine.

The Insect Control Survey of 1935 shows 3065 new attacks, and the Fall and Spring treating shows 3492 trees treated. This area also shows slight winter kill of beetle.

Lower 3rd Fork: Consisting of approximately 309 acres of scattered patches of Lodgepole Pine, and this in many cases is mixed with Aspen. The Lodgepole Pine is mostly mature, and is fairly accessible on the South end, but not at all accessible on the North end. The North end is more patchy, with some Alpine Fir as secondary type mixed with the Lodgepole Pine.

The Insect Control Survey of 1935 shows 602 new attacks, and the Fall and Spring bug jobs show 947 trees treated. Slight winter mortality is shown in this area.

First and Second Fork: Consisting of approximately 684 acres of Lodgepole Pine type of timber, with several large patches and considerable open country. Very heavy infestation was found in the West and South end of this area. This was probably the heaviest infested small area found. The timber is mostly all mature and fairly accessible.

The Insect Control Survey of 1935 shows 1228 new attacks and the Spring bug job shows 1159. This area showed considerable winter kill among the beetles.

Cottonwood: Consisting of approximately 960 acres of fairly heavy patches of good Lodgepole Pine stand on the West end, but very much scattered on the East end. The type is all Lodgepole Pine, but in some cases it is mixed with Aspen. The patches are scattered over most of the area but there is much open country between them.

The Insect Control Survey of 1935 shows 578 new attacks, and the Fall and Spring Bug jobs show 1470 trees treated. In all probability the area shown is low.

Ecklund: Consisting of 200 acres of fairly dense stand of Lodgepole Pine timber with rather large patches. The area is very accessible to local consumption.

The Fall Insect Control Survey of 1935 showed 222 new attacks, and the Spring bug job shows 518 trees treated.

Sawmill: Consisting of approximately 487 acres of fairly dense stand of Lodgepole Pine timber with Alpine Fir and Aspen types mixed with the Lodgepole Pine in many cases. The patches were larger than those of the surrounding country. Most of the timber is mature and very accessible. Several roads go through the compartment. The very Eastern edge of this area is less accessible, and more patchy.

The Fall Insect Control Survey 1f 1935 shows 299 trees with new attacks and the Spring bug job shows 407 trees treated. Considdrable winter kill of the larva in this compartment was noticed.

Basin Patch: Consisting of approximately 389 acres of Lodgepole Pine timber. The timber on this area is in patches of from 1 to 30 acres, but more small patches are found than large ones. Most of the patches are mature and the country is fairly open and very accessible for local timber consumption.

The Insect Control Survey of 1935 shows 339 new attacks, and the Spring bug job shows 492 trees treated.

The attacks in this area were unusual, in that many of the trees showed several different years attacks on one tree. The last year's attacks were very hard to see. Close investigation showed fairly heavy hits of late 1935 attacks. This area also showed considerable winter kill among the larvae on many trees. There is no doubt in this particular area that the bugs were on the natural decrease. Many blind attacks were discovered also, in this area. In many cases, early hit, normal hit, and late hit could be found on one tree, showing three distinct ages of larvae on same tree, each age class being found on different sides of trees, usually. In some cases, all were mixed together on same side. This condition was common on the whole Cassia Division.

Coal Pit: Consisting of approximately 879 acres of timber, being mostly all Lodgepole Pine, with some Alpine Fir mixed with it. The patches are moderately large in size, but many small and scattered patches are found also. The stand is mature, and some good Lodgepole timber can be found in the patches. Several small drainages go through this area, and the North slopes of these are all fairly dense with stands of Lodgepole Pine and Alpine Fir Timber. All this timber in this area is accessible for local consumption.

The Fall Insect Control Survey of 1935 shows 201 new attacks, and the Spring bug job shows 1102 trees treated. Some winter kill among the larvae was found in this area. But even though some winter kill was found, there was still enough living larvae on the trees to require treating. In this area was found heavier infestation than that of Basin Patch adjoining it on the East.

Harrington: Consisting of approximately 147 acres of Lodgepole Pine timber, situated in fairly large patches with several smaller patches and some straggling trees. The timber is mature, with some reproduction. This area is very accessible to local consumption.

The fall Insect Control Survey showed 6 new attacks and the Spring bug job showed 75 trees treated.

Beaver Dam: This compartment consists of only 7 acres of timbered area. The Spring treating shows a total of 22 trees. The compartment is on the Southern edge of the Forest, and its Compartment boundary line is so situated that it is a question as to whether or not the timber belongs in it or in Trapper Creek Compartment.

Summary: In summing up the Control work over all the compartments, we find several factors which enter in to make the fall survey estimate low in comparison to the amount of trees actually treated. 19,081 trees were actually treated; the fall Insect Cruise shows 13,394 estimated new attacks.

Since the acreage of timber by compartments were with few exceptions taken directly from the Timber Survey Maps (1921), statistics by the crew doing the Insect Control cruise 1935, and even in some instances where areas were enlarged by the cruisers, it is believed that the acreage is still considerable larger. It is impossible to get any accurate figures for this report, other than an estimate which is merely a good guess, from observation of the amount of timber in the field. This supposedly excess area may be the primary cause for the low Insect Cruise figures.

At the beginning of this job, adverse conditions were encountered due to excess snow and bad roads, and toward the last (a period of 5 weeks) adverse conditions in regard to fire were encountered. A 1.24" rain helped wind up the job by lessening the fire hazard.

Considerable delay was caused by a continual heavy wind. Also some time was lost due to working in the patchy type of timber. This was somewhat overcome by splitting the crews to cover saattered patches.

A total of 530 hours for heavy machinery was used in opening and keeping roads passable, and a total of 27,717 miles were covered by trucks to move equipment, camp, hay, grain, oil, supplies, men, etc. Due to scattered conditions and length of road detour to get to the camp, an unusual number of miles were traveled.

Heglar Control Unit of the Sublett Division of the Forest: An S&E foreman and 3 6CC men went into the Heglar Compartment by truck, set up camp, and cruised and treated 36 trees and covered some 50 acres of timber which took in all known Lodgepole Pine in the area.

No packer was used, oil and guns were carried by men doing the treating work.

This infestation consisted of scattered light infestation, but the individual trees hit were large mature timber, and exceptionally

heavily hit. The Lodgepole Pine was mostly in scattered pockets mixed with Douglas Fir.

It seems that the dendroctonus ~~monticolae~~ MONTICOLAE has been here for several seasons, but this is the first noticeable outbreak.

Due to small amount of timber, and scattered nature of the Lodgepole Pine pockets of timber, 3 men and a foreman were able to burn the infected trees in 2 days actual treating. Of the 36 trees treated 3 had to be felled. A slight rain materially assisted in reducing the fire hazard and speeding up the work.

The men camped on the job, and did their own cooking.

Data covering the the above work is compiled on the form R-4 FM, I.C-1 attached to this report.

(Signed) Kenneth Olsen
Sr. Foreman in charge
of Insect Control

A.K. Wogensen
(Signed) A.K. Wogensen
Junior Forester

Approved, Aug 28 1936:

Blaine Peterson
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